FAA NATIONAL OPERATIONS AND TRAINING MANUAL FOR THE ACCEPTANCE AND TRANSPORT OF DANGEROUS GOODS IN AIR TRANSPORTATION

ORIGINAL MANUAL DATED JUNE 24, 1998

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINSTRATION

CIVIL AVIATION SECURITY

GREAT LAKES REGION

Record of Changes

FAA NATIONAL OPERATIONS AND TRAINING MANUAL FOR THE ACCEPTANCE AND TRANSPORT OF DANGEROUS GOODS IN AIR TRANSPORTATION - Current Changes Appear in **BOLD** Throughout The Manual

Change Number to Basic	Date		Change Number to Basic	Date
1	**June 21, 2001**			

FAA NATIONAL OPERATIONS AND TRAINING MANUAL FOR THE ACCEPTANCE AND TRANSPORT OF DANGEROUS GOODS IN AIR TRANSPORTATION

_____
(Air Carrier Name)

_____
(Certificate Number)

_____
(Physical Address)

_____
(City) (State) (Zip Code)

_____ _____
(Telephone) (Fax)

_____ _____
(Signature Block) (Signature Block)
Corporate Officer Responsible Hazardous Materials Officer

Statement of Intent: Air Carrier **WILL ACCEPT** Dangerous Goods (DG) for Air Transport

Will Transport Commercial DG? ❒ YES ❒ NO

Will Transport Own DG Company Material (COMAT)? ❒ YES ❒ NO

_____ _____
Recommend Acceptance/Approval Accepted/Approved
CAS Dangerous Goods Coordinator FSDO Principal Operations Inspector

_____ _____
Date Date

FAA NATIONAL DANGEROUS GOODS OPERATIONS AND TRAINING MANUAL

This Dangerous Goods Operations and Training Manual complies with the requirements found in 14 CFR.

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GENERAL

Notwithstanding the contents of this manual, this air carrier is responsible for compliance with all provisions of the Hazardous Material Regulations (HMR), Title 49, Code of Federal Regulations (49 CFR). This air carrier shall review this manual at least annually to ensure compliance with 49 CFR.

A current copy of this manual and the Dangerous Goods/Hazardous Materials (DG/HM) regulations found in 49 CFR Parts 107-185 (or a current copy of International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air or the International Air Transport Association (IATA) Dangerous Goods Regulations, if desired) shall be available at each air carrier station. The North American Emergency Response Guidebook (or equivalent information) shall be aboard each aircraft transporting DG/HM.

This Dangerous Goods Operations and Training Manual shall be followed by all employees, agents, and contract employees when they are involved in the acceptance, handling, storage, and transportation of DG/HM in air commerce.

The terms Dangerous Goods and Hazardous Materials are synonymous and may be used interchangeably. Dangerous goods and hazardous materials are sometimes also referred to as regulated materials, restricted articles, and dangerous materials. Definitions of common terms applicable to DG/HM are found in 49 CFR 171.8, Definitions and Abbreviations.

Employees, agents, and contract employees of this air carrier may not perform any assigned duties or responsibilities involving the acceptance, handling, storage, or transportation of DG/HM unless they have satisfactorily completed Dangerous Goods Training within the last 12 calendar months. The training requirements are found in Part Two of this manual.

No employee, agent, or contract employee of this air carrier may prepare DG/HM for shipment, including Company Material (COMAT), unless trained in this function.

This air carrier shall ensure that the notice required by 49 CFR 175.25 is prominently displayed at all facility locations where passengers are ticketed, boarded, and/or baggage is checked. The notice required by 49 CFR 175.26 shall be prominently displayed at each facility location where cargo is accepted.

PART ONE

DANGEROUS GOODS OPERATIONS

I. ACCEPTANCE PROCEDURES

Persons (shippers) offering DG/HM for air transportation are responsible for properly identifying, describing, classifying, packaging, marking, and labeling the materials as required by either 49 CFR or ICAO. They are also responsible for properly completing the communications and packaging requirements prior to offering the shipment for transportation.

Air carrier employees, agents, and contract employees may rely on the certification and information provided by the shipper to determine if the DG/HM shipment is authorized for air transportation. All employees, agents, and contract employees of this air carrier responsible for the acceptance of cargo or baggage shall be provided a trigger list of indicators of undeclared DG/HM (See Appendix A, Hidden Shipment Indicators) to assist them in their review.

Domestic shipments may be offered in compliance with either 49 CFR or ICAO requirements. The shipper chooses which regulations to use and the chosen regulations must be complied with entirely. Shipments following ICAO must also comply with 49 CFR 171.11.

If the shipment is offered in accordance with ICAO, the accepting employee, agent, or contract employee must also ensure that the shipper has complied with all applicable US Variations to the ICAO Dangerous Goods Table.

This air carrier will use a checklist (See Appendix B, Acceptance Checklist) that will include all reasonable steps to ensure that:

- any package containing DG/HM which is damaged or leaking shall be refused without any further processing;
- the material is properly described on the shipping papers;
- the required certification is on the shipping papers;
- the authorized package is marked and labeled as required;
- the shipment is authorized to be transported by aircraft in the condition offered; and
- emergency response information accompanies the shipment.

This air carrier shall maintain a supply of labels at each facility where DG/HM is accepted, stored, or otherwise prepared for transportation in air commerce. Only an employee, agent, or contract employee of this air carrier who is trained in the acceptance procedures may replace a lost or detached label, and is required to do so, in accordance with the information presented by the shipper on the shipping papers (See 49 CFR 175.40).

A. SHIPPING DOCUMENTS AND CERTIFICATION

1. If Offered Under Title 49 CFR: The proper shipping name for each DG/HM is found in 49 CFR 172.101, the Hazardous Materials Table (HMT). The basic description must include the proper shipping name (supplemented with the technical name(s), if required) found in Column 2, the hazard class or division prescribed as shown in Column 3, the identification number prescribed in Column 4, and the packing group in roman numerals prescribed in Column 5. This basic description must be in proper sequence. Listed next, is the total quantity of the material by weight or volume. The emergency response telephone number and additional entry requirements follow the basic description and quantity.

The shipper's certification must appear on the shipping document and be signed by a representative of the shipper.

2. If Offered Under ICAO: DG/HM must be accurately described on the dangerous goods transport document by its proper shipping name (supplemented with the technical names(s) if required), class or when assigned - division, UN number, and the appropriate packing group. These four elements of the basic dangerous goods description must always be provided in the order given above. In addition to the basic dangerous goods description, the following information must be included on the dangerous goods document: quantity per package for every package of each item, type of packing, and packing instructions. The emergency response telephone number and additional entry requirements follow the basic description and quantity.

Whether offered under 49 CFR or ICAO, two copies of the shipping papers must be provided with the shipment. One copy must accompany each shipment, and one copy must be maintained on file for 90 days by this air carrier.

NOTE: The Federal Hazardous Materials Transportation Law contains a requirement that shipper certificates be retained for a period of one year but has not yet been included in 49 CFR. The current 90-day file may become a one-year file at any time.

B. MARKING

This air carrier shall ensure that the proper shipping name and identification number appearing on the shipping paper are also marked on the outside of the package, outside container, or overpack. The name and address of either the consignee or consignor must also be marked on each package. Packages containing liquid hazardous materials must be legibly marked on two opposite vertical sides of the package with the arrows pointing in the correct upright direction. Any additional marking requirements specified in 49 CFR required for the package or material being shipped must be met (e.g., specification package marking, overpack marking, limited quantity, etc.) (See 49 CFR 172.300-172.326).

C. LABELING

In order for a shipper to offer DG/HM for shipment, the package must be properly labeled. Labels are a printed hazard warning. Labels identify primary and subsidiary hazards specific to the material. They also identify handling instructions. An adequate supply of authorized labels shall be available where DG shipments are loaded aboard an aircraft (See 49 CFR 175.40).

The labeling requirements are found in 49 CFR 172.400-450. Acceptance personnel of this air carrier shall verify that the outside of the package is labeled with the appropriate label(s) from Column 6 of the HMT. Additional handling labels may be required. The "Cargo Aircraft Only" label is for packages containing a quantity of DG/HM that may be shipped only on cargo aircraft or are forbidden for carriage on passenger aircraft but are permitted for carriage on cargo only aircraft per Columns 9A and 9B of the HMT Part 172.

The hazard classes are:

Class 1- Explosives (See 49 CFR 173.50)
Class 2- Flammable Gas (See 49 CFR 173.115)
Class 3- Flammable Liquids (See 49 CFR 173.120)
Class 4- Flammable Solids (See 49 CFR 173.124)
Class 5- Oxidizers and Organic Peroxides (See 49 CFR 173.127 and 173.128)
Class 6- Toxic and Infectious Substances (See 49 CFR 173.132 and 173.134)
Class 7- Radioactive Materials (See 49 CFR 173.403)
Class 8- Corrosive Materials (See 49 CFR 173.136)
Class 9- Miscellaneous (See 49 CFR 173.140)
ORM-D- Other Regulated Materials (See 49 CFR 173.144)

Labels identifying handling instructions are:

"Cargo Aircraft Only" label (See 49 CFR 172.402)
"Magnetized Material" label (See 49 CFR 173.21(d) and the ICAO Dangerous Goods List for magnetized materials)

Orientation markings are required on packages containing liquids (↑↑) (See 49 CFR 172.312).

These labels are depicted on the Hazardous Materials Marking, Labeling & Placarding Guide (**See Appendix C, DOT Chart)**.

D. PLACARDS

Unit Loading Devices (ULD's)/freight containers over 640 cubic feet capacity containing DG/HM, must be placarded in accordance with 49 CFR 172.512(a). ULD's/freight containers less than 640 cubic feet capacity containing DG/HM, must either be placarded or labeled in accordance with 49 CFR 172.512(b). This is an air carrier requirement when consolidating packages for easier handling.

II. COMPANY MATERIALS (COMAT)

COMAT is an industry term developed and used by air carriers and is generally used to describe a wide array of company materials including replacement items for installed equipment and consumable materials. (See Appendix D, Hazardous Materials Onboard Aircraft)

COMAT which meets the definition of a hazardous material is subject to all regulations that apply to any other commercial DG shipment. Three exceptions which apply only to on-line transportation are listed below.

49 CFR 175.10 is entitled "Exceptions." Paragraph (a)(2)(i), (ii), and (iii), commonly referred to as the COMAT Exception states, "This subchapter (the HMR) does not apply to:

(2) Hazardous materials required aboard an aircraft in accordance with the applicable airworthiness requirements and operating regulations. Unless otherwise approved by the Associate Administrator for Hazardous Materials Safety, items of replacement for such hazardous materials must be transported in accordance with this subchapter except that -

(i) In place of the required packaging, packaging specially designed for the transport of aircraft spares and supplies may be used, provided such packaging provide at least an equivalent level of protection to those required by this subchapter [all other requirements of 49 CFR apply];
(ii) Aircraft batteries are not subject to quantity limitations such as those provided in 49 CFR 172.101 or 175.75(a) of this subchapter [all other requirements of 49 CFR apply]; and
(iii) A tire assembly with a serviceable tire is not subject to the provisions of this subchapter provided the tire is not inflated to a gauge pressure exceeding the maximum rated pressure for that tire."

This air carrier shall carefully scrutinize all COMAT received from Repair Stations and Parts Suppliers to determine if the material is DG/HM before introducing it into the air transportation system.

Shipments of DG/HM COMAT that are offered for transportation must be in full compliance with all provisions of the Hazardous Materials Regulations. Employees, agents, and contractors who prepare and/or offer DG/HM shipments for transportation must receive additional function-specific training to satisfy all of the requirements for shippers under 49 CFR 172.700.

III. LOADING/STOWAGE/HANDLING PROCEDURES

No employee, agent, or contract employee of this air carrier, unless trained in this function, may load or transport aboard an aircraft any DG/HM unless the shipment has met acceptance and packaging requirements, and the Pilot-In-Command notification has been completed (See 49 CFR 175.30 and 175.33).

Packages, overpacks, and ULD's containing DG/HM must be inspected for damage or leakage after being unloaded from the aircraft. Any evidence of leakage or damage requires further inspection of aircraft where material was stored (See 49 CFR 175.30 and 175.33).

For stowage on an aircraft, in a cargo facility, or at any other area at an airport designated for the stowage of DG/HM, packages containing DG/HM which might react dangerously with one another may not be placed next to each other or in a position that would allow a dangerous interaction in the event of leakage. At a minimum, the segregation instructions prescribed in the Segregation Table below (Section III.A.) **must** be followed to maintain acceptable segregation between packages containing DG/HM with different hazards. The Segregation Table instructions apply whether or not the class or division is the primary or subsidiary risk. (See 49 CFR 175.78).

A. SEGREGATION TABLE

	Class or Division							
	1	**2**	**3**	**4.2**	**4.3**	**5.1**	**5.2**	**8**
Hazard Label								
1	Note 1	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2	Note 2							
3	Note 2					**X**		
4.2	Note 2					**X**		
4.3	Note 2							**X**
5.1	Note 2		**X**	**X**				
5.2	Note 2							
8	Note 2				**X**			

Section 175.78(c) Instructions for using the Segregation Table are as follows:

(1) The dots at the intersection of a row and column indicate that no restrictions apply.

(2) The letter ``X'' at the intersection of a row and column indicates that packages containing these classes of hazardous materials may not be stowed next to or in contact with each other, or in a position which would allow interaction in the event of leakage of the contents.

(3) Note 1. ``Note 1'' at the intersection of a row and column means the following:

(i) For explosives in compatibility groups A through K and N –

(A) Packages bearing the same compatibility group letter and the same division number may be stowed together.

(B) Explosives of the same compatibility group, but different divisions may be stowed together provided the whole shipment is treated as belonging to the division having the smaller number. However, when explosives of Division 1.5 Compatibility Group D are stowed together with explosives of Division 1.2 Compatibility Group D, the whole shipment must be treated as Division 1.1, Compatibility Group D.

(C) Packages bearing different compatibility group letters may not be stowed together whether or not they belong to the same division, except as provided in paragraphs (c)(3)(ii) and (iii) of this section.

(ii) Explosives in Compatibility Group L may not be stowed with explosives in other compatibility groups. They may only be stowed with the same type of explosives in Compatibility Group L.

(iii) Explosives of Division 1.4, Compatibility Group S, may be stowed with explosives of all compatibility groups except for Compatibility Groups A and L.

(iv) Other than explosives of Division 1.4, Compatibility Group S (see paragraph (c)(3)(iii) of this section), and Compatibility Groups C, D and E that may be stowed together, explosives that do not belong in the same compatibility group may not be stowed together.

(A) Any combination of substances in Compatibility Groups C and D must be assigned to the most appropriate compatibility group shown in the Sec. 172.101 Table of this subchapter.

(B) Explosives in Compatibility Group N may be stowed together with explosives in Compatibility Groups C, D or E when the combination is assigned Compatibility Group D.

(4) Note 2. ``Note 2'' at the intersection of a row and column means that other than explosives of Division 1.4, Compatibility Group S, explosives may not be stowed together with that class.

(5) Packages containing hazardous materials with multiple hazards in the class or divisions, which require segregation in accordance with the Segregation Table need not be segregated from other packages bearing the same UN number.

(6) A package labeled ``BLASTING AGENT'' may not be stowed next to or in a position that will allow contact with a package of special fireworks or railway torpedoes.

Poisons: Packages bearing the poison/toxic or infectious substance label may not be stowed in a ground facility or transported in the same compartment of an aircraft with material known to be foodstuffs, feed, or any other edible material intended for consumption by humans or animals unless loaded in separate ULD's which are not adjacent to each other.

Radioactive Materials (RAM): While in transport or storage, no more than 50.0 Transport Index (TI) of RAM may be stored in any one group of packages. Any group of packages containing 50.0 TI must be separated from any other package or group of packages containing RAM by a distance of 20 feet. No package or group of packages may be placed in a position that is closer to that position which may be continuously occupied by people or animals or to undeveloped film than the distances shown in the charts in 49 CFR 175.701 or 175.703, or as permitted by 49 CFR 175.702(b) for groups of packages.

B. PRE-BOARD INSPECTION

General Inspection - No employee, agent, or contract employee shall load any package, outside container, or overpack containing DG/HM aboard an aircraft, into a freight container, or onto a pallet prior to loading it aboard an aircraft unless immediately before doing so that person has inspected the exterior of the package, outside container, or overpack and determined that it has no holes, leakage, or other obvious indications that its integrity has been compromised. The pre-board inspection is not required for shipments of dry ice (CO_2 solid), magnetized materials, or freight containers of ORM-D AIR materials packaged by, and offered by, a single shipper. A ULD may not be loaded unless the device has been inspected and found to be free from any evidence of leakage or damage to any package containing DG/HM.

Aircraft Quantity Limitations - Except for RAM, Class 9, and ORM-D packages, no more than 25Kg (55 pounds) net weight of DG/HM and/or 75Kg (165 pounds) of "non-flammable compressed gas" permitted to be carried aboard passenger-carrying aircraft may be carried in:

1. Passenger Aircraft
   a) Each inaccessible cargo compartment
   b) Each freight container within an access cargo compartment

2. Cargo Only Aircraft
   a) Same as 1.a) and 1.b)
   b) An inaccessible manner within an accessible cargo compartment

There are some exceptions for cargo-only flights provided in 49 CFR 175.85.

Orientation and Securing of DG/HM Packages - A package containing DG/HM marked or labeled to indicate proper orientation will be loaded and secured in accordance with such markings or labels. Liquid DG/HM without such markings will be loaded and secured with closures up. DG/HM packages will be secured to prevent any movement in flight that would result in damage to or change in orientation of the packages (See 49 CFR 175.79 and 175.81).

Location of DG/HM Packages - No DG/HM package may be carried in the cabin of a passenger-carrying aircraft or on the flight deck of any aircraft. DG/HM may be carried in a main deck cargo compartment of a passenger aircraft provided that the compartment is inaccessible to passengers and that it meets all certification requirements for a Class B aircraft cargo compartment in 14 CFR 25.857(b) or for a Class C aircraft cargo compartment in 14 CFR 25.8578(c). (See CFR 175.85).

Radioactive Materials (RAM) Inspection - Each package containing labeled RAM must also be inspected to insure that the security seal is not broken. This requirement does not apply to packages of RAM that are overpacked.

RAM Limitations - No more than 50.0 TI total may be carried on a passenger carrying aircraft. For cargo-only carrying aircraft 200.00 TI is allowable. Separation distances and other requirements are found in 49 CFR 175.700-703.

Passenger Aircraft - In addition to any other requirement, packages requiring a radioactive yellow II or III label must meet the following loading requirements:

1) The radioactive material must be intended for use in, or incident to, research or medical diagnosis or treatment and this must indicated on the shipper's certification in accordance with 49 CFR 172.204(c)(4).

2) No single package carried by a passenger carrying aircraft may exceed the TI indicated for the category of label listed below:

- Radioactive Yellow II Label: 1.0 TI
- Radioactive Yellow III Label: 3.0 TI

3) Each package must be loaded and carried on the aircraft in accordance with the separation distance specified in 49 CFR 175.701(b) and 175.703(a) and be "suitable safeguarded" and secured so as to prevent its becoming a hazard by shifting or moving.

Cargo-Only Aircraft - In addition to any other requirement, packages requiring a radioactive yellow II or III label must meet the following loading requirements:

1) No single package carried on a cargo-only aircraft may exceed the TI indicated for the category of label below:

- Radioactive Yellow II Label: 1.0 TI
- Radioactive Yellow III Label: 10.0 TI

2) The total TI of all of the packages loaded on the aircraft should not exceed 200.00 and each package is loaded and carried on the aircraft in accordance with the separation distance or pre-designated area requirements of 49 CFR 175.701 and "suitably safeguarded" and secured so as to prevent its becoming a hazard by shifting or movement.

3) If the total TI for all of the packages exceeds 50 TI the following criteria must be met:

a) The separation distance between the surfaces of the RAM packages and the surfaces bounding the space occupied by persons is at least 30 feet. The separation distance between the surfaces of the RAM packages and the surfaces bounding the space occupied by animals at least 0.5 meters (20 inches) for journeys not exceeding 24 hours and at least 1.0 meters (39 inches) for journeys longer than 24 hours.

b) The TI for any group of packages does not exceed 50.0 and each group is separated by at least 20 feet from any other as measured from the outer surface of each group.

c) For purposes of this paragraph, the term "group of packages" means packages that are separated from each other in aircraft by a distance of 20 feet or less.

d) Fissile RAM: The total TI for all packages containing fissile RAM does not exceed 50.0 (See 49 CFR 175.702(b)(2)(B)(iv))

4) Aircraft used routinely for the carriage of Class 7 (radioactive) materials shall be periodically checked for radioactive contamination. If the level of contamination exceeds 0.5 millirem per hour the aircraft must be taken out of service and may not again be placed in service or routinely occupied until the radiation does rate at any accessible surface is less than 0.5 millirem per hour and there is no significant removable radioactive surface contamination.

IV. PILOT-IN-COMMAND NOTIFICATION

The Pilot-In-Command (PIC) must be given accurate and legibly written information as early as practicable before departure regarding the DG/HM proper shipping name, hazard class, identification number, packing group, total packages, and net quantity or gross weight for each DG/HM, location aboard the aircraft, and confirmation that no damage or leaking packages have been loaded. For RAM, the number of packages, overpacks, or ULD's/freight containers, category, transport index (if applicable), and their location aboard the aircraft are required. (See 49 CFR 175.33).

If the PIC loads the aircraft, that individual must perform the pre-board inspection required. If someone other than the PIC loads the aircraft and conducts the pre-board inspection, that person shall provide the PIC with written notification. A copy of the PIC notification must be readily available to the PIC during flight.

Emergency response information concerning DG/HM on board must be available to the PIC (See 49 CFR 172.602 (c)(1)).

V. SPECIAL FLIGHTS/EXEMPTIONS

The transportation of flammable liquid fuel in small, passenger-carrying aircraft is authorized only when the provisions of 49 CFR 175.310 are met.

DG/HM listed in 49 CFR 175.320 is authorized for air transportation when cargo-only aircraft is the only means of transportation available. In addition, all other conditions of this section must be followed.

Flights made under the provisions of a DOT exemption or approval must comply with the conditions specified in the exemption or approval.

Any approved exemption or approval for this air carrier shall be retained as an Appendix to this manual.

VI. DG/HM EXCEPTIONS

Certain materials that are normally regulated as DG/HM are excepted from the HMR. They are set forth in **Appendix E, DG/HM Exceptions** of this manual and 49 CFR 175.10.

VII. ACCEPTANCE OF WHEELCHAIRS/MOBILITY AIDS

This air carrier will accept battery-powered wheelchairs/mobility aids as baggage. Wheelchairs/mobility aids will be not transported if they exhibit evidence of previous leakage or damage.

Wheelchair batteries are either "spillable" or "non-spillable." A non-spillable battery will normally be labeled as such. In the absence of a label, a battery whose caps or cover cannot be removed is considered to be non-spillable; if the caps or cover can be removed, it is considered to be spillable.

Wheelchairs/mobility aids non-spillable batteries may be accepted for carriage with the battery attached when properly prepared for shipment (the battery is disconnected and terminals and ends of cables are insulated to prevent short circuits). Batteries manufactured after September 30, 1995, must be marked on the outside of the battery case, "NON-SPILLABLE" or "NON-SPILLABLE BATTERY." If the wheelchair cannot be loaded/stowed in an upright position, it is advisable that the battery be disconnected and terminals are insulated to prevent short circuits.

If this requirement cannot be met, the battery must be removed from the housing by qualified airline personnel only, and transported in strong, rigid packaging under the following conditions:

- The packaging must be leak-tight and impervious to battery fluid. An inner liner may be used to satisfy this requirement if there is absorbent material placed inside of the liner and the liner has a leak proof closure;

- The battery must be protected against short circuits, secured upright in the packaging, and be packaged with enough compatible absorbent material to completely absorb liquid contents in the event or rupture of the battery; and
- The packaging must be labeled with a CORROSIVE label, marked to indicate proper orientation, and marked with the words "Battery, wet, with wheelchair;" and
- The PIC must be advised either orally or in writing prior to departure as to the location of the spillable battery aboard the aircraft.

VIII. NOTIFICATION OF DG/HM INCIDENTS AND REQUIRED REPORTS

A. Incident Notification (See 49 CFR 171.15)

1) Each air carrier SHALL REPORT TO THE NEAREST FAA CIVIL AVIATION SECURITY OFFICE IN THE REGION OF DISCOVERY BY TELEPHONE AT THE EARLIEST PRACTICABLE MOMENT AFTER EACH INCIDENT THAT OCCURS DURING THE COURSE OF TRANSPORTATION (including loading, unloading, or temporary storage) in which:

a) A person is killed; or
b) A person receives injuries requiring hospitalization; or
c) There is an estimated $50,000 in property damage; or
d) An evacuation of the general public occurs lasting one or more hours; or
e) One or more major transportation arteries or facilities are closed or shut down for one hour or more; or
f) The operational flight pattern or routine of an aircraft is altered; or
g) Fire, breakage, spillage, or suspected radioactive contamination occurs involving shipment of RAM; or
h) Fire, breakage, spillage, or suspected contamination occurs involving shipment of infectious substances (etiologic agents); or
i) A situation exists of such nature (e.g., a continuing danger to life exists at the scene of the incident) that, in the judgment of the carrier, should be reported to the Department even though it does not meet the criteria of paragraph 1)(a), (b), or (c) of this section.

2) Radioactive Materials - In addition to the notification to the FAA, this air carrier will also make a telephone notification to the shipper of the RAM involved in the incident.

3) Infectious Substances (etiologic agents) - In addition to the notification to the FAA, this air carrier will also notify the Center for Disease Control (1-800-232-0124) of any infectious substance involved in the incident.

B. Incident Reports (See 49 CFR 171.16)

Each carrier who transports hazardous materials shall report in writing, in duplicate, on DOT Form F 5800.1 within 30 days of the date of discovery, each incident that occurs during the course of transportation (including loading, unloading, or storage incidental thereto) in which any of the circumstances set forth in 49 CFR 171.15 (a) occurs or when there has been unintentional release of hazardous materials from a package or a quantity of hazardous waste has been discharged during transportation. A copy of DOT Form F 5800.1 will be forwarded to:

1) Information Systems Manager, DHM-63
Research and Special Programs Administration
Department of Transportation
Washington, DC 20590-0001

2) The nearest FAA Civil Aviation Security Office in the region of discovery at the earliest practicable moment after each incident that occurs during the course of transportation (including loading, unloading, or temporary storage);

Instructions for completing DOT Form F 5800.1 are included in Appendix F, Guide for Preparing Hazardous Materials Incidents Reports.

C. Report of Discrepancies (See 49 CFR 175.31)

Discrepancies which must be reported are those involving undeclared shipments or hazardous materials which are improperly described, certified, labeled, marked, or packaged, in a manner not ascertainable when accepted under the provisions of 49 CFR 175.30(a).

In the event of a discrepancy relative to the shipment of a hazardous material following its acceptance for transportation aboard an aircraft, this air carrier SHALL AS SOON AS PRACTICABLE NOTIFY THE NEAREST FAA CIVIL AVIATION SECURITY OFFICE BY TELEPHONE AND SHALL PROVIDE THE FOLLOWING INFORMATION:

1) Name of employee, agent, or contractor making the report;
2) Company name of the aircraft operator;
3) Specific location of the shipment concerned;
4) Name of the shipper; and
5) Nature of discrepancy.

EMERGENCY RESPONSE CONTACTS - RECOMMENDED LIST

NOTE: These contact numbers are not required at the time of program submission to the FAA and should be tailored to each station location.

CONTACT	PHONE NUMBER
Local FAA Civil Aviation Security Office	
FAA Regional Operations Center (24-hour contact)	
FAA Flight Standards District Office (FSDO) (Holding FAA Certificate)	
Airport Police	
Fire Department	
Ambulance/Hospital	
Center for Disease Control	1-800-232-0124
CHEMTREC	1-800-424-9300
State Department of Emergency Services	
Disposal of Hazardous Materials (Residue of spill, cleanup, etc.)	
For Radioactive Materials:	
Department of Energy (DOE)	202-586-8100
Nuclear Regulatory Commission (NRC)	301-816-5100
State Radiation Control	

PART TWO

DANGEROUS GOODS TRAINING

I. REQUIREMENTS

This air carrier shall not use any person to perform any assigned duties or responsibilities for acceptance, handling, storage, and/pr transportation of DG/HM cargo, baggage, and DG/HM COMAT unless the individual has satisfactorily completed an initial course of study and an oral or written test regarding DG/HM. All incorrect answers shall be reviewed with the trainee until proficiency is achieved.

In addition, within the preceding 12 calendar months, the individual must have received either initial training or annual recurrent training and satisfactorily completed an oral or written test. All incorrect answers shall be reviewed with the trainee until proficiency is achieved.

This air carrier shall maintain a record of the satisfactory completion of the initial and recurrent training for each individual. These records will be available at the location where the personnel perform such duties, and will be maintained for as long as the employee is performing DG/HM duties and for 90 days thereafter.

A. TRAINING REFERENCE TABLE

At a minimum, training in the subject matter relating to DG/HM transport will be provided to the various categories of personnel as indicated below:

MODULE	AREA OF TRAINING	CATEGORY OF PERSONNEL (see key below)				
		1	2	3	4	5
1	General Awareness/Familiarization	X	X	X	X	X
2	Hidden Dangerous Goods	X	X	X	X	X
3	Company Materials (COMAT)	X	X	X	X	X
4	Documentation	X	X		X	
5	Acceptance & Handling	X	X		X	
6	Marking & Labeling	X	X	X	X	X
7	Classification	X	X	X	X	X
8	Identification	X	X		X	
9	Packing	X	X			
10	Notification to Pilot-In-Command	X	X		X	X
11	Safety & Reporting	X	X	X	X	X
12	Dangerous Goods Exceptions	X	X	X	X	X
13	Testing	X	X	X	X	X
SEE NOTE	Recommended Training Time - Initial	8 hours	6 hours	1 hour	2 hours	1 hour
SEE NOTE	Recommended Training Time- Recurrent	2 hours	2 hours	1 hour	2 hours	1 hour

KEY:

1 - Personnel engaged in the acceptance of DG/HM shipments.
2 - Maintenance, stores, and other personnel engaged in ground handling, storage, and loading/unloading of DG/HM.
3 - Personnel engaged in passenger and baggage check-in procedures (i.e., skycaps, ticket counter agents, etc.).
4 - Flight crew members.
5 - Flight attendants and dispatchers.

NOTE: The extent of training varies for each personnel category depending on the responsibility of the position (e.g., Flight crew members will receive a general overview of the marking and labeling requirements, while an individual engaged in the actual acceptance of DG/HM will receive more detailed instructions). The material shall be covered in such scope and depth as to provide all persons with sufficient knowledge of applicable regulations and procedures to safely accomplish their specific duties.

II. TRAINING CURRICULUM

The modules listed below will be covered during the initial and recurrent training of this air carrier's personnel. This training will be considered to comply with all requirements for the acceptance, handling, and transportation of DG/HM as specified in 49 CFR and/or the ICAO Technical Instructions. This air carrier will ensure that all materials and regulations used in its training curriculum is current and valid at the time of the training.

Module 1 - General Awareness/Familiarization

Applicable Regulatory Materials
Overview of 49 CFR Parts 100-185
Use of ICAO Technical Instructions ~ 49 CFR 171.11
Use of IATA Dangerous Goods Regulations
Definitions Used in Air Transportation of Hazardous Materials ~ 49 CFR 171.8
General Transportation Requirements ~ 49 CFR 171.2
Carriage By Aircraft ~ 49 CFR Part 175
Training Requirements and Record keeping ~ 49 CFR 172.700
Enforcement

Module 2 - Hidden Dangerous Goods

Hidden Shipment Indicators ~ Appendix A
Suspicious Cargo and Baggage Awareness

Module 3 ~ Company Materials (COMAT)

Identify and Recognize DG COMAT
- Hazardous Materials Onboard Aircraft ~ Appendix D
- Replacement Components
- Consumable Materials

Specific DG COMAT Exceptions ~ 49 CFR 175.10(a)(2)

Facility Storage, Safe Movement and Handling Requirements for DG COMAT ~ 49 CFR 175.78
- Specific Hazards and Precautionary Measures

Proper Disposal Procedures for DG COMAT
- Environmental Precautions
- Transportation Precautions

Module 4 - Documentation

Shipper's Certification Requirements for Hazardous Materials ~ 49 CFR 172.204

Shipping Paper Requirements ~ 49 CFR 172.200 and 172.201

Description of Hazardous Materials Required on Shipping Papers ~ 49 CFR 172.202 and 172.203

Shipping Papers for Hazardous Materials Aboard Aircraft ~ 49 CFR 175.35

Module 5 - Acceptance & Handling

Passenger and Cargo Information Signage Requirements ~ 49 CFR 175.25 and 175.26

Acceptance Procedures and Requirements for DG/HM ~ 49 CFR 171.2(a), 175.3, and 175.30

Unit Load Device and Package Inspection ~ 49 CFR 175.88

Quantity Limitations Aboard Aircraft ~ 49 CFR 175.75 and 175.85

Stowage Compatibility ~ 49 CFR 175.78

Orientation of Packages ~ 49 CFR 175.79

Securing Packages ~ 49 CFR 175.81

Location of Packages ~ 49 CFR 175.85

Damages Shipments of Hazardous Materials ~ 49 CFR 175.90

Module 6 - Marking & Labeling

Markings Required on Packages Containing Hazardous Materials ~ 49 CFR Subpart D

Labels Required on Packages Containing Hazardous Materials ~ 49 CFR Subpart E

Keeping and Replacement of Hazardous Materials Labels ~ 49 CFR 175.40

Module 7 - Classification

Hazardous Materials Classification ~ 49 CFR 172.101, 173.2, and 173.2(a)

Unacceptable Hazardous Materials ~ 49 CFR 172.101, 173.21, and 175.3

Modules 8 - Identification

Purpose and Use of the Hazardous Materials Tables ~ 49 CFR 172.101
Proper Shipping Names ~ 49 CFR 172.101 and 172.202
Hazard Class (Definitions) ~ 49 CFR 172.101 and 173.50 - 173.144
UN/ID Numbers ~ 49 CFR 172.101 and 172.202
Packing Group ~ 49 CFR 172.101 and 172.202

Module 9 - Packing

Shippers Responsibilities ~ 49 CFR 171.2(a) and 171.12
General Packing Requirements ~ 49 CFR 173.24, 173.24(a), and 173.27
Packing Instructions and Assignments ~ 49 CFR 172.101 and Part 173
Small Quantity Exceptions ~ 49 CFR 173.4
Limited Quantity Exceptions ~ 49 CFR 173.150 – 173.156

Module 10 - Notification to Pilot-In-Command

Notification to Pilot-In-Command ~ 49 CFR 175.33 and 175.35
Emergency Response Information ~ 49 CFR Subpart G

Module 11 - Safety & Reporting

Emergency Response Information ~ 49 CFR 172.600
Hazardous Materials Incident Reporting/Discrepancy ~ 49 CFR 171.15, 171.16, 175.31, and Appendix F

Module 12 - Dangerous Goods Exceptions

Exceptions ~ 49 CFR 175.10

Module 13 - Testing ~ 49 CFR 172.702(d)

APPENDIX A

HIDDEN SHIPMENT INDICATORS

Cargo and baggage offered to an air carrier under a general description may have hazards that are not apparent. The Hazardous Materials Table in 49 CFR Part 172 is not complete and shippers and passengers may not be aware of this. Some of these consignments have caused incidents that could have seriously endangered the safety of the aircraft and/or its passengers.

Air Carrier personnel should be alert to these possible hazards. Items found containing a hazardous material need to be shipped in accordance with the 49 CFR/ICAO Technical Instructions.

NAME	REMARKS
Aircraft Parts/COMAT	May indicate the presence of chemical oxygen generators, flammable liquids/solids, corrosives, compressed gases, radioactive materials in aircraft parts and accessories, or general company materials.
Automobile Parts (car, motor, motorcycle)	May contain cellulose paints, wet batteries, shocks/struts with nitrogen, air bag inflators/air bag modules, etc.
Batteries (Corrosive)	**May contain battery terminals that are not grounded properly and could short circuit.**
Breathing Apparatus/SCUBA	May indicate compressed air or oxygen cylinders.
Bull (or other animal) Semen	May involve use of refrigerant (e.g., Liquid Nitrogen).
Camping Equipment	**May contain flammable liquids, gas or solids.**
Chemicals	Often found to be hazardous.
Cryogenic (Liquid)	Indicates low temperature, low pressure, or non- pressurized gas such as Argon, Helium, Neon, and Nitrogen
Cylinders	May indicate compressed gas
Dental Apparatus	May contain hazardous chemicals such as resins or solvents
Electrical Equipment	May contain magnetized materials or mercury in switch gear and electron tubes
Fireworks	**May contain an explosive material**
Flammable Gas Torches	**May contain a flammable gas, an oxidizer or loose safety devices**
Fuel Control Units	**May contain a flammable liquid**
Electrically powered	May contain wet batteries apparatus (wheelchairs, lawn mowers, golf carts, etc.)
Frozen Fruit, vegetables	May be packed in Dry Ice (Solid Carbon Dioxide)
Gasoline Powered Devices	**May contain corrosives, flammable liquids, etc.**
Oxygen Generators	**May contain an Oxidizer material.**
Household Goods	May contain hazardous materials such as paint, aerosols, bleaching powder, etc.
Hydrogen Peroxide	**May contain a forbidden Oxidizer**
Instruments	May conceal barometers, manometers, mercury switches, rectifier tubes, thermometers containing mercury
Laboratory/Testing	May contain various hazardous chemicals
Machinery Parts	May include hazardous chemicals (adhesives, paints, sealants, solvents, etc.)
Medical Supplies/Equipment/Oxygen (Test Kits)	**May contain various hazardous chemicals**
Pharmaceuticals	May contain various hazardous chemicals
Photo Supplies	May contain various hazardous chemicals

Refrigerators	May contain liquefied gases or ammonia solution
Repair Kits (or Spares or Spare Parts)	May contain various hazardous materials (adhesives, solvents, cellulose paints, organic peroxides, etc.)
Samples for Testing	May contain various hazardous materials (including infectious substances)
Swimming Pool Supplies	May contain acid, chlorine
Switches in Electrical Equipment or Instruments	May contain mercury
Tear Gas Dispensers	Contains irritating material or pepper gas which is forbidden on passenger aircraft
Toys	May be made of celluloid or other flammable material
Uninterruptible Power Sources	**May contain battery terminals that are not grounded properly and could short circuit.**
Vaccines	May be packed in Dry Ice (Solid Carbon Dioxide)

Note 1: Articles which do not fall within the hazardous materials definitions of 49 CFR and which, in the event of leakage, may cause a serious cleanup problems or corrosion to aluminum on a long term basis must be checked by the shipper to at least ensure that the packaging is adequate to prevent leakage during transportation. These may include brine, powered or liquid dyes, pickled foodstuffs, etc.

Note 2: Magnetized material, as defined in 49 CFR, with a gauss reading of more than 0.00525 is forbidden for air transportation and a package with a reading of 0.00525 or less is not regulated. The ICAO and IATA Regulations regulate magnetized material with a reading between 0.002 gauss and 0.00525 gauss, thus requiring a magnetized material label.

DANGEROUS GOODS CHECK LIST FOR A NON-RADIOACTIVE SHIPMENT

The recommended check list appearing on the following pages is intended to verify shipments at origin. Never accept or refuse a shipment before all times have been checked.

Is the following information correct for each entry?

SHIPPERS DECLARATION FOR DANGEROUS GOODS (DGD)

	YES	NO*	N/A
1. Two copies in English format	☐	☐	
2. Full name and address of Shipper	☐	☐	
3. Full name and address of Consignee	☐	☐	
4. Name and telephone number of a person responsible for Division 6.2 Infectious Substance shipment	☐	☐	☐
5. If the Air Waybill is not shown, enter it	☐	☐	
6. The number of pages shown	☐	☐	☐
7. If full name of Airport or City of Departure or Destination is not shown, enter it	☐	☐	
8. The non-applicable Aircraft Type deleted	☐	☐	
9. The word "Radioactive" deleted	☐	☐	

Identification

10. Proper Shipping Name and the technical name in parentheses for asterisked entries	☐	☐	
11. Class or Division, and for Class 1, the Compatibility Group	☐	☐	
12. UN or ID Number, preceded by prefix	☐	☐	
13. Packing Group	☐	☐	☐
14. Subsidiary Risk	☐	☐	☐

Quantity and Type of Packing

15. Number and Type of Packages	☐	☐	
16. Quantity and unit of measure (net or gross, as applicable) per package	☐	☐	☐
17. If different dangerous goods are packed in one outer packaging, are the following rules applied:			
- Compatible (note exception for chemical kits/first aid kits. See packing Instruction 915 and Y915)	☐	☐	☐
- For UN packages containing Division 6.2	☐	☐	☐
- "All packed in one (type of packaging)"	☐	☐	☐
- Calculation of "Q" value	☐	☐	☐

	YES	NO*	N/A
18. Overpack			
- Indication "Overpack used"	☐	☐	☐
- Compatible	☐	☐	☐
- Multi-overpack marks and quantity	☐	☐	☐

Packing Instructions

19. Packing Instruction Number	☐	☐	

Authorizations

20. Indication of "Limited Quantity" or "Ltd. Qty." if "Y" packing instruction used	☐	☐	☐
21. The Special Provision Number if A1,A2 A51, A81, or A109	☐	☐	☐
22. Indication that governmental authorization is attached, including a copy in English	☐	☐	☐
23. Additional approvals as needed	☐	☐	☐

Additional Handling Information

24. For self-reactive and related substances of Division 4.1 and organic peroxides of Division 5.2, or samples thereof, is the mandatory statement shown	☐	☐	☐
25. Prior arrangement statement for Infectious Substances	☐	☐	☐
26. Name and Title of Signatory, Place and Date indicated	☐	☐	☐
27. Signature of Shipper	☐	☐	☐
28. Amendment or alteration signed by Shipper	☐	☐	☐

Air Waybill

29. The Handling Information box shows: "Dangerous goods as per attached Shipper's Declaration" or Dangerous Goods as per attached DGD"	☐	☐	☐
30 "Cargo Aircraft Only" or "CAO", if applicable	☐	☐	☐

	YES	NO*	N/A
31. Packaging conforms with packing instructions and is undamaged	☐	☐	
32. Same number and type of packagings and overpacks delivered as shown on DGD and is undamaged	☐	☐	☐

Markings

33. For UN Specification Packaging, are they marked			
- Symbol and Specification Code	☐	☐	☐
- X, Y, Z, agreed with Packing Group/ Packing Instruction	☐	☐	☐
- Maximum Gross Weight not exceeded (solids or inner packagings)	☐	☐	☐
- Infectious substance package marking	☐	☐	☐
34. The Proper Shipping Name(s) including technical name where required, and the UN or ID Number(s)	☐	☐	
35. The full name(s) and Address(es) of Shipper and Consignee	☐	☐	
36. The Net Quantity of Explosives and Gross Weight of the package for Class 1 items	☐	☐	☐
37. The Name and telephone Number of a person responsible for Division 6.2 Infectious Substances shipment	☐	☐	☐
38. The Special Marking requirements shown for Packing Instruction 202	☐	☐	☐
39. In the case of Carbon Dioxide, Solid (Dry Ice), the New Weight marked on the Package	☐	☐	☐
40. For Limited Quantity packagings: "Limited Quantity" or "LTD. QTY."	☐	☐	☐
41. For Salvage Packagings: Is it marked "Salvage"?	☐	☐	☐

Labeling

42. The Primary Risk Label(s), with Class or Division Number affixed to each package	☐	☐	
43.. The Subsidiary Hazard Labels must show the Class or Division number	☐	☐	☐
44. Cargo Aircraft Only label, adjacent to Hazard label(s)	☐	☐	☐
45. "Orientation" labels	☐	☐	☐
46. For Magnetized Material, the Handling label	☐	☐	☐
47. "Cryogenic Liquid" labels	☐	☐	☐
48. All above labels correctly affixed and have all irrelevant marks and labels been removed	☐	☐	☐

For Overpacks

49. If specification markings are not visible, the required statement marked	☐	☐	☐
50. Packaging Use markings as required must be clearly visible or reproduced on the outside of the overpack	☐	☐	☐
51. If more than one overpack, identification marks and the total quantity of each overpack must be indicated adjacent to the proper shipping name	☐	☐	☐
52. "Cargo Aircraft Only" restrictions	☐	☐	☐

General

53. State and Operator variations complied with	☐	☐	☐
54. Advance arrangements for Infectious, Self-Reactive Substances of Division 4.1 and Organic Peroxides of Division 5.2 made and confirmed	☐	☐	☐
55. For "Cargo Aircraft Only" shipments, a cargo aircraft operates on all sectors	☐	☐	☐

Comments:

Checked by:

Place: Signature:

Date:

Time:

*IF ANY QUESTION IS ANSWERED WITH A "NO", DO NOT ACCEPT THE SHIPMENT AND GIVE A DUPLICATE COPY OF THIS COMPLETED FORM TO THE SHIPPER.

DANGEROUS GOODS CHECK LIST FOR A RADIOACTIVE SHIPMENT

The recommended check list appearing on the following pages is intended to verify shipments at origin. Never accept or refuse a shipment before all times have been checked. **Is the following information correct for each entry?**

SHIPPERS DECLARATION FOR DANGEROUS GOODS (DGD)

	YES	NO*	N/A
1. Two copies in English format	☐	☐	
2. Full name and address of Shipper	☐	☐	
3. Full name and address of Consignee	☐	☐	
4. If the Air Waybill is not shown, enter it	☐	☐	
5. The number of pages shown	☐	☐	
6. The non-applicable Aircraft Type deleted	☐	☐	
7. If full name of Airport or City of Departure Destination is not shown, enter it	☐	☐	
.8 The word "Non-Radioactive" deleted	☐	☐	

Identification

9. Proper Shipping Name	☐	☐	
10. Class 7	☐	☐	
11. UN Number, preceded by prefix	☐	☐	
12. Packing Group if required for Subsidiary Risk	☐	☐	☐
13. Subsidiary Risk	☐	☐	☐

Quantity and Type of Packing

14. Name or Symbol of Radionuclide(s)	☐	☐	
15. A description of the physical and Chemical form, or Special Form, not required for UN 3332 and UN 3333 or low dispersible material	☐	☐	☐
16. The number and type of packages and the activity in Becquerels in each package, or for Fissile Material the total weight in grams or kilograms of fissle material may be shown in place of activity	☐	☐	☐
17. For different individual radionuclides, the activity of each radionuclide and the words "All packed in one"	☐	☐	☐
18. Activity within limits for Type A packages of Type B	☐	☐	☐

	YES	NO*	N/A
19. Words "overpack used" shown on DGD	☐	☐	☐

Packing Instructions

20. Category of package(s) or overpack	☐	☐	☐
21. Transport Index and dimensions for Category II and Category III only For Fissile Material the Criticality Safety Index	☐	☐	☐
22. "Fissile Excepted"	☐	☐	☐

Authorizations

23. Identification marks shown and a copy of the document in English attached to DGD for the following	☐	☐	☐
- Special Form approval certificate	☐	☐	☐
- Low dispersible material approval certificate	☐	☐	☐
- Type B package design approval certificate	☐	☐	☐
- Type B (M) package shipment approval certificate	☐	☐	☐
- Type C package design and shipment approval	☐	☐	☐
- Fissile material package design and shipment approval certificate	☐	☐	☐
- Special Arrangement shipment approval certificate	☐	☐	☐
24. Additional Handling Information	☐	☐	☐
25. Name and Title of Signatory, Place, and Date	☐	☐	☐
26. Signature of Shipper	☐	☐	☐
27. Amendment or alteration signed by	☐	☐	☐

Air Waybill

28. The Handling Information box shows: "Dangerous goods as per attached Shipper's Declaration" or " Dangerous Goods as per attached DGD	☐	☐	☐
29. Cargo Aircraft Only or CAO if applicable	☐	☐	☐

YES NO* N/A

Package(s) and Overpacks

30. Number and type of packagings and overpacks delivered as shown on DGD ☐ ☐ ☐

31. Unbroken transportation seal and package in proper condition for carriage ☐ ☐ ☐

Markings

32. For Industrial packages, are they marked appropriately ☐ ☐ ☐

33. For Type A packages are the marked appropriately ☐ ☐ ☐

34. For Type B packages, are they marked appropriately ☐ ☐ ☐

35. For Type C packages, are the marked appropriately ☐ ☐ ☐

36. For Fissile packages, are they marked appropriately ☐ ☐ ☐

37. The Proper Shipping Name and UN Number ☐ ☐

38. The full Name and Address of the Shipper and Consignee ☐ ☐

39. The permissible gross weight if it exceeds 50 kg ☐ ☐ ☐

Labeling

40. Two correctly completed Radioactive labels on opposite sides ☐ ☐

41. Applicable Subsidiary Hazard labels adjacent to the Radioactive label completed Criticality Safety Index labels, if applicable ☐ ☐

YES NO* N/A

42. Two Cargo Aircraft Only labels, if required, adjacent to the Hazards labels to the Radioactive labels completed ☐ ☐ ☐

43. For fissile materials, two correctly completed Criticality Safety Index (CSI) labels on opposite sides ☐ ☐ ☐

44. All labels correctly affixed and irrelevant marks and labels removed ☐ ☐ ☐

For Overpacks

45. If IP-1, IP-II, IP III ,Type A, Type B or Type C markings are not visible, is the required statement shown ☐ ☐ ☐

46. Information on the contents and activity appears on the radioactive label or for overpacks containing packages of different radionuclides, this information may be replaced by the statement " See Shipper's Declaration for Dangerous for Dangerous Goods ☐ ☐ ☐

47. Packaging markings as required must be clearly visible or reproduced on the outside of the overpack ☐ ☐ ☐

General

48. State and Operator variations complied with ☐ ☐ ☐

49. For Cargo Aircraft Only shipments, a cargo aircraft operates on all sectors ☐ ☐ ☐

50. For packages containing Cargo Dioxide Solid (dry ice), have the marking, labeling and documentary requirements been applied ☐ ☐ ☐

Comments:

Checked by:

Place: Signature:

Date:

Time:

*IF ANY QUESTION IS ANSWERED WITH A "NO", DO NOT ACCEPT THE SHIPMENT AND GIVE A DUPLICATE COPY OF THIS COMPLETED FORM TO THE SHIPPER.

APPENDIX C

DOT CHART
Hazardous Materials Marking, Labeling & Placarding Guide

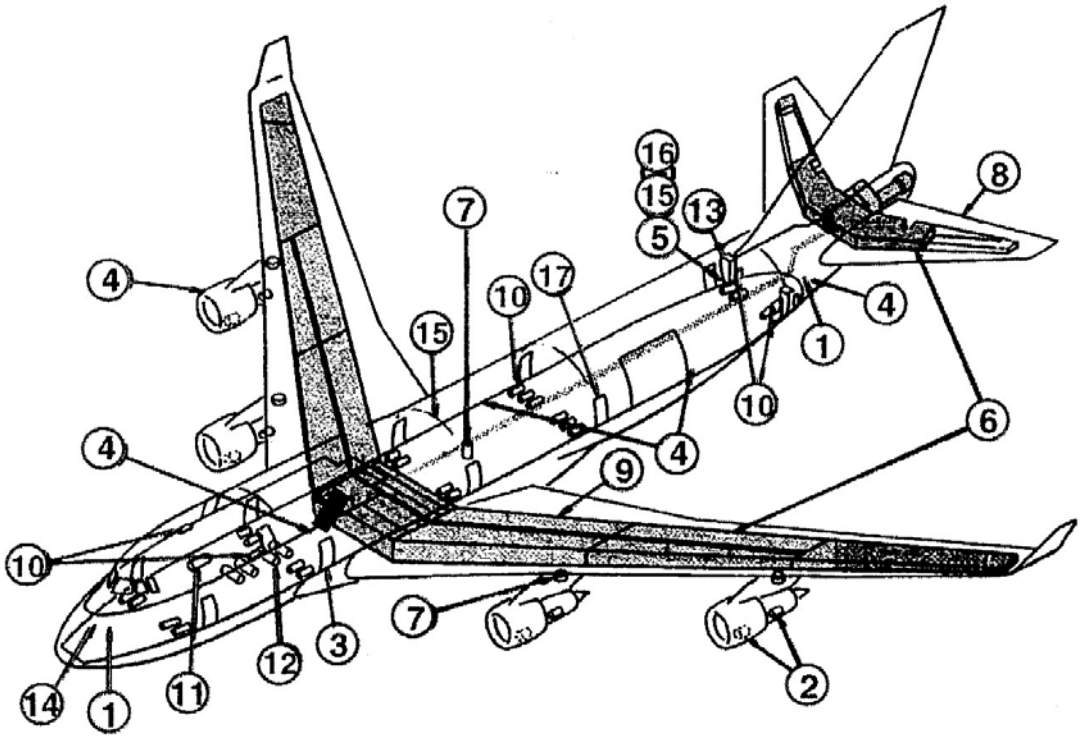
SEE ATTACHED

You may order the most current copy of the DOT CHART by accessing the following Internet Page:

http://hazmat.dot.gov/hazhome.htm

APPENDIX D

Hazardous Materials Onboard Aircraft



1. **Batteries, Aircraft** (qty. 2)
2. **Engine Oil** (as hazardous waste)
3. **Escape Slides/Life Rafts** (all entry doors/rafts optional)
4. **Fire Bottles** (APU, engines, lower cargo compartment, and lavatory waste containers)
5. **Fire Extinguishers** (attendant stations, closets, galleys, etc.)
6. **Fuel**
7. **Hydraulic Fluid, Reservoirs** (as hazardous waste)
8. **Uranium** (depleted, counter-balance weights)
9. **Ordnance Devices** (off-wing escape)
10. **Oxygen Bottles, Portable, Gaseous**
11. **Oxygen Bottles, Crew System, Gaseous**
12. **Oxygen Bottles, Passenger System, Gaseous** (Standard)
13. **Oxygen Generators** (optional: each PSU standard: each attendant station and lavatory)
14. **Rain Repellant**
15. **Refrigerant** (located in each galley)
16. **Smoke Hoods**
17. **Tritium Signs** (aisle and emergency exit doors)

APPENDIX E

The following are exceptions to 49 CFR, as stated in Section 175.10, Exceptions, and may be carried aboard company aircraft.

a) This subchapter does not apply to:

1) Aviation fuel and oil in tanks that are in compliance with the installation provisions of 14 CFR, Chapter 1.

2) Hazardous materials required aboard an aircraft in accordance with the applicable airworthiness requirements and operating regulations. Unless otherwise approved by the Associate Administrator for Hazardous Materials Safety, items of replacement for such hazardous materials must be transported in accordance with this subchapter except that –

(i) In place of the required packagings, packagings specially designed for the transport of aircraft spares and supplies may be used, provided such packagings provide at least an equivalent level of protection to those that would be required by this subchapter;

(ii) Aircraft batteries are not subject to quantity limitations such as those provided in section §172.101 or §175.75(a) of this subchapter; and,

(iii) A tire assembly with a serviceable tire is not subject to the provisions of this subchapter provided the tire is not inflated to a gauge pressure exceeding the maximum rated for that tire.

3) Hazardous Materials loaded and carried in hoppers or tanks of aircraft certificated for use in aerial seeding, dusting, spraying, fertilizing, crop improvement, or pest control, to be dispensed during such an operation.

4) The following hazardous materials when carried by a passenger or crew member for personal use in conformance with the following conditions:

(i) Non-radioactive medicinal and toilet articles (including aerosols) may be carried in checked or carry-on baggage;

(ii) One self-defense spray (see §171.8), not exceeding 118 ml (4 fluid ounces) by volume, that incorporates a positive means to prevent accidental discharge may be carried in checked baggage only;

(iii) Other aerosols in Division 2.2 with no subsidiary risk may be carried in checked baggage only; and

(iv) The aggregate quantity of hazardous materials carried by the person may not exceed 2 kg (70 ounces) by mass or 2 liters (68 fluid ounces) by volume and the capacity of each container may not exceed 0.5 kg (18 ounces) by mass or 470 ml (16 fluid ounces) by volume.

5) Small-arms ammunition for personal use carried by a crewmember or passenger in his baggage (excluding carry-on baggage) if securely packed in fiber, wood, or metal boxes or other packagings specifically designed to carry small amounts of ammunition. This paragraph does not apply to persons traveling under the provisions of 14 CFR 108.11 (a) and (b).

6) [Reserved.]

7) Oxygen, or any hazardous material used for the generation of oxygen, for medical use by a passenger, which is furnished by the aircraft operator in accordance with 14 CFR Part 121.574 or Part 135.91. For the purposes of this paragraph, an aircraft operator that is not a certificate holder under 14 CFR Part 121 or Part 135, may apply this exception in conformance with 14 CFR Part 121.574 or Part 135.91 in the same manner as required for a certificate holder.

8) Human beings and animals with an implant medical device, such as a heart pacemaker, that contains Class 7 (radioactive material) or with radiopharmaceuticals that have been injected or ingested.

9) Smoke grenades, flares, or similar devices carried only for use during a sport parachute jumping activity.

10) **Safety matches or a lighter intended for use by an individual when carried on one's person. However, lighters containing unabsorbed liquid fuel (other than liquefied gas), lighter fuel, and lighter refills are not permitted on one's person or in checked or carry-on baggage.**

11) Smoke grenades, flares, and pyrotechnic devices affixed to aircraft carrying no person other than a required flight crewmember during any flight conducted at or a part of a scheduled air show or exhibition of aeronautical skill. The affixed installation accommodating the smoke grenades, flares, or pyrotechnic devices on the aircraft must be approved by the FAA for its intended use.

12) Hazardous material which are loaded and carried on or in cargo aircraft only, and which are to be dispensed or expanded during flight for weather control, forest preservation and protection, flood control, avalanche control purposes, or routine quality control testing of special fireworks manufactured for the Department of Defense, when the following requirements are met:

(i) Operations may not be conducted over densely populated areas, in a congested airway, or near any airport where air carrier passenger operations are conducted.

(ii) Each operator shall prepare and keep current a manual containing operational guidelines and handling procedures, for the use and guidance of flight, maintenance, and ground personnel concerned in the dispensing or expending of hazardous materials. The manual must be approved by the FAA Civil Aviation
Security Office responsible for the operator's overall aviation security program or the FAA Civil Aviation Security Office in the region where the operator is located. The manual must be approved by the FAA Civil Aviation Field Office responsible for reviewing the operator's hazardous materials program or the FAA Civil Aviation Security Field Office in the region where the operator is located. Each operation must be conducted in accordance with the manual.

(iii) No person other than a required flight crewmember, FAA inspector, or person necessary for handling or dispensing the hazardous material may be carried on the aircraft.

(iv) The operator of the aircraft must have advance permission from the owner of any airport to be used for the dispensing or expending operation.
(v) When dynamite and blasting caps are carried for avalanche control flights, the explosives must be handled by, and at all times be under the control of, a qualified blaster. When required by State or local authority, the blaster must be licensed and the State or local authority must be identified in writing to the FAA Civil Aviation Security Office responsible for reviewing the operator's hazardous materials program or the FAA Civil Aviation Security Field Office in the region where the operator is located.
(vi) When special fireworks aerial illuminating flares, manufactured specifically for the DOD, are carried for in-flight routine quality control testing, the fireworks must be handled by, and at all times be under the control of, a qualified person who has been trained in accordance with a program approved by the local FAA Civil Aviation Security Office. The aircraft must be specially modified to conduct the testing operation and must be specifically approved for such operations by the local FAA Civil Aviation Security Field Office before the flight.

13) Carbon dioxide, solid (dry ice) when:
(i) In quantities not exceeding 2.3 kg (5.07 pounds) per package packed as prescribed by §173.217 of this subchapter and used as a refrigerant for the contents of the package. The package must be marked with the name of the contents being cooled, the net weight of the dry ice or an indication that the net weight is 2.3 kg (5.07 pounds) or less, and also marked "Carbon Dioxide, Solid" or "Dry Ice;"
(ii) Intended for use in food and beverage service aboard aircraft; or
(iii) In quantities not exceeding 2 kg (4.4 pounds) per passenger when used to pack perishables in carry-on baggage provided the package permits the release of carbon dioxide gas.

14) A transport incubator unit necessary to protect life or an organ preservation unit necessary to protect human organs provided:
(i) The compressed gas used to operate the unit is in an authorized DOT specification cylinder and is marked, labeled, filled, and maintained as prescribed in 49 CFR;
(ii) Each battery used in the operation of the unit is of the non-spillable type;
(iii) The unit is constructed so that valves, fittings, and gauges are protected from damage;
(iv) The pilot-in-command is advised when the unit is on board and when it is intended for use;
(v) The unit is accompanied by a person qualified to operate it;
(vi) The unit is secured in the aircraft in a manner so as not to restrict access to or use of any required emergency or regular exit or of the aisle in the passenger compartment; and,
(vii) Smoking within 3 meters (10 feet) of the unit is prohibited.

15) Alcoholic beverages, perfumes, colognes, and liquefied gas lighters that have been examined by the Bureau of Explosives (B of E) and approved by the Associate Administrator for Hazardous Materials Safety, carried aboard a passenger-carrying aircraft by the operator for use or sale of the aircraft.

16) Perfumes and colognes, purchased through duty-free sales, carried by passengers or crew in carry-on baggage.

17) Alcoholic beverages containing:

(i) Not more than 24% alcohol by volume; or

(ii) More than 24% and not more than 70% alcohol by volume when in retail packagings not exceeding 5 liters (1.3 gallons) carried by a crew member or passenger in checked or carry-on baggage, with a total net quantity per person of 5 liters (1.3 gallons) for such beverages.

18) Carbon dioxide gas cylinders worn by passengers for the operation of mechanical limbs and spare cylinders of a similar size for the same purpose in sufficient quantities to ensure an adequate supply for the duration of the journey.

19) A wheelchair or other battery-powered mobility aid equipped with a nonspillable battery, when carried as checked baggage, provided that-

(i) The battery meets the provisions of 173.159(d) for non-spillable batteries;

(ii) Visual inspection, including where necessary, removal of the battery, reveals no obvious defects (however, removal of the battery from the housing should be performed by qualified airline personnel only);

(iii) The battery is disconnected and terminals are insulated to prevent short circuits; and

(iv) The battery is securely attached to the wheelchair or mobility aid, is removed and placed in a strong, rigid packaging that is marked "NONSPILLABLE BATTERY" (unless fully enclosed in a rigid housing that is properly marked), or is handled in accordance with paragraph (a)(20)(iv) of this section.

20) A wheelchair or other battery-powered mobility aid equipped with a spillable battery, when carried as checked baggage, provided that-

(i) Visual inspection including, where necessary, removal of the battery, reveals no obvious defects (however, removal of the battery from the housing should be performed by qualified airline personnel only);

(ii) The battery is disconnected and terminals are insulated to prevent short circuits.

(iii) The pilot-in-command is advised, either orally or in writing, prior to departure, as to the location of the battery aboard the aircraft; and

(iv) The wheelchair or mobility aid is loaded, stowed, secured, and unloaded in an upright position, or the battery is removed, the wheelchair or mobility aid is carried as checked baggage without further restriction and the removed battery is carried in a strong, rigid, packaging under the following conditions:

(A) The packaging must be leak-tight and impervious to battery fluid. An inner liner may be used to satisfy this requirement if there is absorbent material placed inside of the liner and the liner has a leak-proof closure;

(B) The battery must be protected against short circuits, secured upright in the packaging, and be packaged with enough compatible absorbent material to completely absorb liquid contents in the event of rupture of the battery; and

(C) The packaging must be labeled with a CORROSIVE label, marked to indicate proper orientation, and marked with the words, "Battery, wet, with wheelchair."

21) Hair curlers containing hydrocarbon gas, no more than one per passenger or crewmember, provided that the safety cover is securely fitted over the heating element. Gas refills for such curlers are not permitted in checked or carry-on baggage.

22) A mercurial barometer or thermometer carried as carry-on baggage only, by a representative of a government weather bureau or similar official agency, provided that individual advises the operator of the presence of the barometer or thermometer in his baggage. The barometer or thermometer must be packaged in a strong outer packaging having a sealed inner liner or a bag of strong, leak-proof and puncture-resistant material impervious to mercury, which will prevent the escape of mercury from the package irrespective of its position. The pilot-in-command must be informed of the presence of any such barometer or thermometer by the operator of the aircraft.

23) With the approval of the operator of the aircraft and as carry-on baggage, electrically powered heat-producing articles (e.g., battery-operated equipment, such as underwater torches and soldering equipment) which, if accidentally activated, will generate extreme heat and can cause fire. The heat-producing component or the energy source must be removed so as to prevent unintentional functioning during transport.

24) Reserved

25) With the approval of the aircraft operator, one small carbon dioxide cylinder fitted into a self-inflating lifejacket, plus one spare cartridge, may be carried by a passenger or crewmember in checked or carry-on baggage.

26) A small medical or clinical mercury thermometer for personal use, when carried in protective cases by passengers or crewmembers.

b) A cylinder containing medical-use compressed oxygen, owned or leased by an aircraft operator or offered for transportation by a passenger needing it for personal medical use at destination, may be carried in the cabin of a passenger-carrying aircraft in accordance with the following provisions:

1) No more than six cylinders belonging to the aircraft operator and, in addition, no more than one cylinder per passenger needing the oxygen at destination, may be transported in the cabin of the aircraft under the provisions of this paragraph (b);

2) The rated capacity of each cylinder may not exceed 850 liters (30 cubic feet);

3) Each cylinder and its overpack or outer packaging (see Special Provision A52 in §172.102 of this subchapter) must conform to the provisions of this subchapter;

4) The aircraft operator shall securely stow the cylinder in its overpack or outer package in the cabin of the aircraft and shall notify the pilot-in-command as specified in §175.33 of this part; and

5) Shipments under this paragraph (b) are not subject to-
   (i) Subpart C and, for passengers only, subpart H of part 172 of this subchapter;
   (ii) Section 173.25(a)(4) of this subchapter.
   (iii) Section 175.85(i).

APPENDIX F

Guide for Preparing Hazardous Materials Incidents Reports

SEE ATTACHED

A COPY OF THE GUIDE FOR PREPARING HAZARDOUS MATERIALS INCIDENTS REPORTS, AND THE FORM DOT F 5800.1 CAN BE DOWNLOADED FROM THE FOLLOWING INTERNET SITE:

http://hazmat.dot.gov/hazhome.htm